2002 Water Quality Report

Robins Air Force Base Water System Permit No. 1530042

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Good News About Your Water

We are pleased to report that your drinking water met or exceeded all safety and quality standards set by the Georgia Environmental Protection Division (EPD) and the US Environmental Protection Agency (EPA) during the previous year.

This Water Quality Report provides detailed accounts of all the water monitoring and testing results gathered during 2002 for the Robins AFB Public Water System. Included are details about where your water originates, what it contains, and how it compares to standards set by regulatory agencies. The purpose of this report is to advise consumers about drinking water quality and heighten awareness of the need to protect precious water resources. It reflects the hard work and dedication of the 78th Civil Engineering Group, who operates and maintains the water distribution and treatment systems; the 78th Medical Group Bioenvironmental Engineering Flight, who tests the drinking water for safety and quality; and the Environmental Management Directorate, who oversees the program and ensures compliance with our Georgia drinking water permit.

To comply with the Consumer Confidence Reporting Rule of the Federal Safe Drinking Water Act, the 78th Medical Group Bioenvironmental Engineering Flight issues this annual report on drinking water monitoring results. For additional information or to provide input regarding this report or your drinking water, contact the Robins AFB Public Affairs Office at 926-2137. The base organizations that manage the water system have an open door policy with our residents.

"...your drinking water met or exceeded all safety and quality standards."

Is the water on Robins AFB safe?

Yes! Our water meets or exceeds all of the Georgia EPD and US EPA regulations for drinking water. In order to ensure that tap water is safe to drink, the US EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The testing results in the table at the end of this report show that we met the requirements for safe drinking water.

Where does our water come from?

Our drinking water is drawn from the Blufftown Aquifer, a ground water source. This is a safe and reliable source, providing high-quality water that is free of micro-organisms such as Giardia and Cryptosporidium that are sometimes found in rivers and lakes.

Rain water percolates down into the Blufftown Aquifer through layers of soil and sand, which act as natural cleansing filters to remove impurities. We draw raw water through the wells located throughout the base.

How is your water treated?

A variety of techniques are used to treat your tap water, including disinfection by chlorination as well as fluoridation to protect children's teeth. The water also goes through a softening process by adding poly-orthophosphate and lime. The treatment operation is staffed 24 hours a day by state-licensed water treatment plant operators. All of our drinking water is pumped from six wells at Robins AFB.

"This is a safe and reliable source, providing high quality water..."

Putting things into perspective*

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. It's important to realize that a minute presence of contaminants in drinking water does not necessarily indicate there is a health risk. More information about contaminants and potential health effects can be obtained by calling the US EPA's Safe Drinking Water Hotline at 800-426-4791.

* The above statement is an advisory statement required to be published by 40 Code of Federal Regulations (CFR) 141.153(h)(1)(iv) for all water systems.

How do contaminants get into drinking water?

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, naturally occurring radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in any source water before it is treated include:

- Microorganisms, such as viruses and bacteria, may come from sewage treatment plants, septic systems, and wildlife.
- Inorganic chemicals, such as salts and metals, which can be naturally occurring, or result from storm water runoff or industrial sources.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, or residential uses.
- Organic chemicals, originating typically from industrial operations and storm water runoff.
- Radionucleides, which can naturally occur, or are the result of mining activities.

Here at Robins AFB, the drinking water aquifer is located over 300 feet below ground surface and separated from surface water by several thick clay layers. Most surface water contaminants never reach the drinking water supply.

Special Health Considerations **

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA / CDC (Environmental Protection Agency / Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline 800-426-4791. ** The above statement is an advisory statement required to be published by 40 Code of Federal Regulations (CFR) 141.154(a) for all water systems.

Availability of our Source Water Assessment

Our Source Water Assessment is complete and available for review (May 2003). The assessment will be made available to consumers through the Warner Robins Public Library. The Source Water Assessment will include information regarding potential sources of contamination in our watershed and a review of the controls to mitigate any potential impact. A summary of the potential pollutant sources that are found in both the control and management zones yields the following:

- Hazards associated with the handling of the various oils and greases used in the maintenance of pump motors and emergency generators are present at all wells.
- Hazards associated with handling of the various chemicals used in the water treatment system are present at all wells, except WS-1.
- Hazards associated with diesel fuel are present at all wells, except WS-18.
- Hazards associated with storm water runoff are present at all wells, except WS-16 and WS-17.

What is a Monitoring Waiver?

The Source Water Assessment and Vulnerability Assessment shows the Robins AFB water system's raw water to not be in a high potential pollution risk situation. As authorized by GA EPD, our system has reduced monitoring requirements for certain contaminants to less often than once per year because the concentration of these contaminants are not expected to vary significantly from year to year. The reduced monitoring requirements, called waivers, have been issued to Robins AFB drinking water system for the following inorganic compounds: asbestos and cyanide, effective 1 January 2002 to 31 December 2010. Additionally, our system has a waiver for 31 synthetic organic compounds, effective 1 January 2002 to 31 December 2004.

Please contact the Robins AFB Public Affairs Office at 926-2137 if you have questions about drinking water waivers or wish to receive a copy.

Water Quality Violation and Corrective Action

During 2002 a self inspection by Robins AFB revealed two sampling violations which occurred several years ago. Robins AFB failed to collect four quarterly samples consecutively for volatile organic compounds from Well No. 5, and four quarterly samples consecutively for synthetic organic compounds from Wells No. 16 and 18. Robins AFB did not notify persons served by the system of these violations within three months and every three months thereafter as long as the violations existed. The corrective measures included taking consecutive quarterly samples as required and submitting the results to GA EPD. A public notice was published in the Robins RevUp satisfying the legal notification requirement. No exceedences of National Primary Drinking Water Regulations were found during sampling. These sampling violations did not result in any adverse health effects and do not pose a threat to the quality of drinking water supplied at Robins AFB.

Water Quality Data

The GA EPD and USEPA have established standards regulating contaminants. The tables below display data for monitoring period January through December 2002 and are designed to inform you about substances that may be found in your drinking water. Compare the Robins AFB water system to the standards by reviewing the US EPA MCL level to the column labeled "highest level detected." Your drinking water was not in violation of the standards during 2002.

Results for regulated Primary Contaminants

Substance	MCL	MCLG	Highest Level Detected	Year Sampled	Violation Yes/No	Possible sources of contamination
Total Coliform Bacteria	1[a]	0	0[b]	2002	**No**	Naturally present in the environment
Copper (at tap) (ppm)	AL=1.3[c]	AL=1.3[c]	0.27[c]	2002	**No**	Erosion of natural deposits; corrosion of household plumbing systems
Lead (at tap) (ppb)	AL=15[c]	AL=15[c]	0[c]	2002	**No**	Erosion of natural deposits; corrosion of household plumbing systems
Fluoride (ppm)	4	4	1.29	2002	**No**	Erosion of natural deposits; water additive which promotes strong teeth
Nitrate (ppm)	10	10	0.64	2002	**No**	Erosion of natural deposits
Total Nitrate/Nitrite (ppm)	10	10	0.64	2002	**No**	Erosion of natural deposits
Sodium (ppm)	160	N/A	3.2	2000[d]	**No**	Erosion of natural deposits
Alpha Emitter (pCi/L)	15	0	<1	2002	**No**	Erosion of natural deposits
Radium-226 (pCi/L)	5	0	1.1	1999[d]	**No**	Erosion of natural deposits
Total Trihalomethanes (ppb)	100	0	2.74	1994[d]	**No**	By-product of drinking water chlorination

a. The MCL for total coliform bacteria is based on the presence or absence of total coliform in a sample.

b. Highest number of positive total coliform samples collected in any one month.

c. These samples represent the 90th percentile for the Robins AFB water system.

d. Data was collected in previous years, but is still considered by GA EPD to be representative of drinking water quality.

Results for Secondary Contaminants[1]

Substance	SMCL	Highest Level Detected	Year Sampled	Violation Yes/No
Aluminum (ppb)	200	120	2000[d]	**No**
Fluoride (ppm)	2	1.29	2002	**No**
Iron (ppb)	300	370.00[2]	2000[d]	**No**
Zinc (ppm)	5	0.40	2000[d]	**No**

1. Secondary contaminant MCLs control substances that primarily affect aesthetic qualities (odor or appearance) of drinking water. These MCLs are not federally enforceable but are intended as guidelines.

2. No known or expected risk to public health, may affect color and taste.

Drinking Water Definitions:

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

ppm: parts per million

ppb: parts per billion

pCi/L: Pico curies per liter (a measure of radioactivity)

N/A: Not applicable

ND: Not detected

NR: Not reported